LETTERS TO THE EDITOR.

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Latin as a Universal Language.

In the notice of Prof. Guido Baccelli in Nature of January 27, you mention that at the meeting of the eleventh International Congress of Medicine in Rome in 1894 he made a powerful appeal for the introduction of Latin as a universal language all over the world. This proposal seems to me so important and valuable that it should not be passed over with a simple reference, but should, on the contrary, receive the most careful consideration, not only from the councils of our universities, from the heads of schools, and from educational authorities in general, but from all business men and all lovers of their country.

It is generally conceded that the study of Latin is one of the best means of training a schoolboy's brain. But an objection which is daily gaining force is that Latin occupies far too much of a schoolboy's time, and it is given undue prominence in examinations to the exclusion of other subjects of more value. Except for its use as a subject of training, Latin, as at present taught in most schools, is only of use to a few scholars, and the majority of those who have spent several painful years in acquiring it at school find little or no use for it in after-life, and more or less completely forget it. But the case would be very different if Latin were generally taught, not as a dead, but as a living language; as, indeed, it is taught already in a few schools. Just as the boys in the Balearic Islands are said to have acquired their skill in using the sling by the necessity of bringing down their dinners by it from places out of their reach, so boys can learn very quickly to speak Latin correctly if they have to ask for their food at table and other things they want in that language.

As is said in your notice of Prof. Baccelli, a very slight alteration in the present curriculum would enable boys to speak Latin, but if it is to be a universal language a mode of pronunciation common to all countries must be employed. I am aware that the Board of Education has succeeded in introducing the reformed pronunciation in the secondary schools controlled by it, and that the rules of the Classical Association are now widely adopted; so that the foundations of a universal system have been laid. But while boys can learn to speak Latin correctly in school, it is out of school hours that they must learn to speak it fluently. If the head boys in a school could be made to see that they will render valuable service to their country by setting a good example and speaking Latin in the cricket ground, football field, and in talks amongst themselves, the small boys will immediately follow suit, it will become the fashion to talk Latin, and very soon every boy in the school will speak Latin as fluently as he speaks English. But to gain the approval of the boys, Latin ought to be taught in a different way from what it usually is, and the making of Latin verses should be left out, for though it may be useful in after-life to scholars and literary men it is useless to most others, it consumes a great deal of time, and it is intensely disliked by most boys. Greek should be regarded as a luxury and not as a necessity.

The need of a universal language has been making itself more and more felt of recent years in proportion as intercommunication between different countries has increased. In order to supply this want various attempts to frame a universal language have been made, such as Volapuk and Esperanto. Though a certain amount of success has been claimed for both of these, yet neither has attained to anything like the position of a universal language.

As compared with Dutch or Germans, and especially with Russians, Englishmen are, in general, very poor linguists, and I think it is partly in consequence of this that German commerce has, before the war, been successful in many countries at the expense of the English. When this awful war is over, Germany will again try to oust the English from the world's commerce, and to embroil the present Allies with one another by every means that ingenuity and malice can suggest. Unless Englishmen all learn to speak French, Italian, and Russian, how can the necessary rapprochement be kept up? French and Italian are comparatively easy, but Russian is very difficult, and it may be the most necessary of all. Latin may not be taught at present so universally in Russian as in English schools, but if Latin were adopted by the English, French, Italian, and Russian Governments as the recognised medium of intercommuncation there can be little doubt that in a very short time Latin would resume the place it once held as the language in universal use all over the civilised world.

Lauder Brunton.

Belgian Soldiers in Holland.

We venture to appeal to men of science to help in the admirable work which is being done by Prof. Antoine, of Louvain, on behalf of Belgian soldiers who escaped with our Naval Division from Antwerp, and are now interned in Holland.

With the sympathetic approval of the Dutch authorities, Prof. Antoine has organised at Harderwijk, in the camp of Zeist, courses of instruction in agriculture and horticulture, and hopes to start a course of forestry.

Lectures are given in elementary botany, chemistry, and surveying. In addition to these general lectures, special courses are given on general agriculture, diseases of plants, agricultural machinery, book-keeping, the elements of zoology, and animal physiology of farm animals. A general course in dairy work, and special courses on the chief branches of horticulture are also to be included in the programme. Three airy and well-lit rooms are available for the purpose of instruction, but there is a great need for teaching accessories—diagrams, models, and collections. We appeal, therefore, to your readers for help in supplying the following requisites:—

(1) Wall diagrams, botanical and zoological (the latter relating to insects and farm animals).

(2) An electric lantern and lantern-slides illustrative of natural science and agricultural and horticultural processes.

(3) Books on British agriculture and horticulture.

(4) Surveying instruments.

(5) Zoological and botanical models and specimens.

(6) Microscopes, simple and compound, and accessories.

We shall be greatly obliged if those of your readers who are in a position to make contributions will, in the first place, communicate with M. H. van Orshoven, Comité Officiel Belge, 21 St. James's Square, London, S.W.

With a list of promises before us, we shall be in a position to prevent unnecessary duplication of gifts from those willing to help in this good work. Already direct appeal to manufacturers, publishers, and others has resulted in many gifts of samples of feeding-stuffs, fertilisers, seeds, books, diagrams, etc. We may add that at the end of the war, Prof. Antoine proposes to present the collections to the University of Louvain.

Judging from our own experience, there are few laboratories which do not contain diagrams and appa-

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ratus which, though they have passed out of current use, are none the less valuable. A spring-cleaning of the laboratories would result in many useful discoveries of this kind, and the dedicating of them to this purpose would "bless him that gives" as well as "him that takes."

WILLIAM SOMERVILLE.
FREDERICK KEEBLE.

Germany's Aims and Methods.

THOSE of us whose educational experience has taught us to see behind the scenes of English official life in scientific matters for the last two or three decades will be prepared to endorse the scathing indictment brought against English officialdom by Sir William Ramsay in his article in NATURE of January 27, on "Germany's Aims and Methods." My own experience, extending over eighteen years as the senior science master of Wellington College, led me to form conclusions which were put forward in the 'eighties and the 'nineties through the editorial courtesy of NATURE, and are therefore easily accessible. To give pointed illustration of this, I may quote a remark made more than twenty years ago to me in a letter from a professor at the Royal Military Academy, Woolwich, where cadets were trained for the artillery, and (prospectively) for the Royal Engineers. He spoke with just indignation of science being treated as the "fifth wheel of the coach." Germany has made it the *first* wheel of her coach, and has startled the British public by the discovery that the Germans seem to be very clever people, as the scales have fallen from unwilling eyes, and the academical nose has learned that experimental chemistry and research are something more than "Stinks."

Sir William Ramsay rightly condemns the principle of selection for the Civil Service, and no one with first-hand knowledge of the facts will gainsay his conclusions on that head. But that covers only a part of the ground; and we need not hesitate to say that, if the brain-energy expended in the controversies about the retention of Greek at Oxford and Cambridge in the past twenty or thirty years had been directed towards making *some one branch of science essential* (along with the present minimum of mathematics) *for all degrees,* the outlook for England in this war would have been brighter than it is to-day. The country would also have been saved from the evil results of blank vacuity of mind on elementary matters of science on the part of the majority of our statesmen and legislators, who receive their 400*l*. a year as members of the House of Commons, while the more general application of scientific ideas and methods to commerce and manufactures might have saved us from the disadvantage at which we are placed in this world struggle, as this war is opening people's minds to see (not without alarm) how many things we had allowed ourselves to become dependent on Germany for in the course of a generation. A. IRVING.

Bishop's Stortford, January 31.

Instruction in Science for Military Purposes.

IN response to requests from a number of important centres, I subjoin a syllabus covering the essential points to be taught to officers, N.C.O.'s, and men who have only a limited time at their disposal taken from other military duties. Experience has shown that much valuable work may be done by following on the lines suggested, all extraneous matter being excluded. The scheme has been found to be satisfactory for all ranks; in the case of officers, however, who have had some previous training in science, the matters may be treated in a more advanced manner. Teachers will find N.C.O.'s and men very keen and intelligent, and completely useless men quite rare. An excellent chance is now afforded by the men called up under Lord Derby's scheme, of which all teachers who can should avail themselves.

In arranging for a class regular attendance should be insisted on. Reports on the abilities of each student are much appreciated by commanding officers, who are thereby assisted in making a correct choice for special duties. All lectures should be illustrated by experiments so far as possible, and parts of instruments described by reference to good-sized models, or, failing these, well-executed diagrams. A class should not exceed twenty in number, and questions should be freely invited.

FIELD TELEPHONES.

Time required, about twelve hours, of which the first three should be devoted to the elements of electricity, as required for this subject. The general ground is covered by the writer's lecture, published in the Journal of the Royal Society of Arts for September 3, 1915. All practical details will be found in "The Field Artillery Telephone," by J. Young, obtainable only from Cattermole, Woolwich, price 9*d*. The necessity of learning the Morse code should be strongly impressed on all.

Preliminary.—Vibrations; sound—analogy between gramophone and telephone. Elementary idea of electric current; pressure, rate of flow and resistance. Conductors and insulators—function of a tapping-key. Permanent magnets—action between similar and opposite poles. Electromagnets—rule for polarity.

Induced currents—induction coil—how alternating currents are produced in secondary.

Cells—meaning of + and – poles. Description of "inert" dry cell; how to test for efficiency; useful life. How to couple cells in series. Condensers—elementary notion, action on direct and alternating currents.

Service Telephones, chiefly the "D Mark III." (If the actual instruments are not available, models will be found useful.) Typical circuit for field telephones. Earth returns. Description of microphone and receiver (service patterns). Action of a single-reed buzzer. Polarised double-reed buzzer of D Mark III.: adjustments, current required for efficient working. Complete circuit of D Mark III. telephone. Circuit of Stevens's telephone. Tests for efficiency of telephones: likely defects; how remedied.

Lines.—Single and multiple lines. Repairing broken lines. Causes of overhearing. How to tap into an existing line. Telephone exchange, simple form.

Practical Work.—Examination of cells with voltmeter; connecting in series. Rewiring a transmitter and receiver. Repairing a broken line of stranded steel wire (very important). If instruments are available, one or two exercises in the field in laying lines and communicating by speech and Morse code on the buzzer may be given.

POISON GASES.

Full details of this subject are not made public. The teacher must use his judgment as to gases likely to be used; chlorine may be taken as typical. The best absorbents of each gas should be stated, together with information about helmets and their proper use. Stress should be laid on the necessity of complete absence of exertion and administration of oxygen in rendering first aid to a sufferer. A description of oxygen apparatus as used in mines should be given. Two or three hours may be given to this subject.

RANGE FINDERS.

Lectures on this subject should be directed to an understanding of "one-man" range finders, and par-

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